# The Ctenuchidae (Moths) of Trinidad, B.W.I. Part II. Ctenuchinae<sup>1</sup>

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### (Plates I-III)

[This paper is one of a series emanating from the tropical field station of the New York Zoological Society, at Simla, Arima Valley, Trinidad, British West Indies. This station was founded in 1950 by the Zoological Society's Department of Tropical Research, under the direction of Dr. William Beebe. It comprises 200 acres in the middle of the Northern Range, which includes large stretches of undisturbed government forest reserves. The laboratory of the station is intended for research in tropical ecology and in animal behavior. The altitude of the research area is 500 to 1,800 feet, and the annual rainfall is more than 100 inches.

[For further ecological details of meteorology and biotic zones see "Introduction to the Ecology of the Arima Valley, Trinidad, B.W.I.," William Beebe, Zoologica, 1952, 37 (13): 157-184].

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### INTRODUCTION

HIS is the second paper on the species of moths belonging to the Family Ctenuchidae that have been recorded in the literature from Trinidad or collected by the Department of Tropical Research of the New York Zoological Society at its biological station at Simla, Arima Valley, Trinidad.<sup>2</sup>

The present paper includes a key to the genera of the Ctenuchidae of Trinidad and keys to the species within the genera, as in the first part, which should be referred to for additional introductory detail. Part II includes photographs of the species collected at Simla, as an aid to biologists working on ctenuchids of the island. As in Part I, which dealt with the Euchromiinae, no attempt has been made to make complete references under the species of Ctenuchinae. References to the original description, pertinent or new synonymy, colored figures, helpful descriptions to the species or a specific reference to Trinidad have been cited.

Part I on the Euchromiinae contained 23 genera and 50 species, among them 9 species not previously reported from Trinidad and five that were described for the first time. Kaye & Lamont

<sup>&</sup>lt;sup>2</sup>The first paper was: The Ctenuchidae (Moths) of Trinidad, B.W.I. Part I. Euchromiinae. Zoologica, 1957, 42 (10): 105-130.

(1927) and Lamont & Callan (1950) had reported 16 species of the Euchromiinae that we have not collected.

The present paper on the Ctenuchinae contains 23 genera and 60 species, among them two new species and 13 which are new locality records for Trinidad. The authors cited above collected 11 species of the Ctenuchinae which we have not collected.

The total number of ctenuchids recorded from Trinidad and included in Parts I and II is 110 species in 46 genera.

My thanks go to Miss Rosemary Kenedy, who made notes and took photographs of many of the holotypes of the ctenuchid species in the British Museum (Natural History) which aided in the determination of some of the species in question. Miss Kenedy also collected the greater part of the ctenuchid collection of the Department of Tropical Research. Thanks go also to Dr. William Beebe and Miss Jocelyn Crane for their part in assembling the collection and for advice and criticism. All photographs in Part I and in this paper were taken by Sam Dunton, Staff Photographer of the New York Zoological Society.

### KEY TO GENERA OF TRINIDADIAN CTENUCHIDAE

- - no bladder-like process at base of abdomen. Second and third ventral abdominal segments covered by a valve in male Sphecops

- Forewing with veins M<sub>2</sub> and M<sub>3</sub> immediately divergent and hind tibia fringed.

  \*\*Macroneme\* (part)
- Forewing with accessory cell. Male with tufts on anal segment.....Phoenicoprocta
   Forewing without accessory cell and male without tufts on anal segment............ 10

- Hind tibiae flattened with long scales on distal end and on tarsi.. Macroneme (most) Hind tibiae and tarsi with normal scaling. 13

13. Hindwing with lower part of cell very short,

195	9] Fleming: Ctenuchidae (M
22.	Forewing with vein Cu <sub>2</sub> from near end of cell
23.	Forewing with vein Cu <sub>1</sub> from lower angle of cellLeucotmemis
	Forewing with vein Cu <sub>1</sub> from above lower angle of cell
24.	Distal end of hind tibiae and tarsal joints edged with scales
25.	Hindwing with veins Cu <sub>1</sub> and Cu <sub>2</sub> forked near margin of wing
26.	Outer half of forewing hyalineAmycles Forewing completely scaled
27.	Anal segment of abdomen with lateral tufts Eriphioides Abdomen without anal tufts Ceramidia
28.	of cell
	Hindwing with four veins from lower part of cell
29.	Forewing opaque
30.	Hindwing with outer margin convex, evenly rounded
	Hindwing with outer margin concave, sinuate, produced at apical area and indented at cubital vein area
31.	Outer margin of hindwing evenly rounded Chrysostola
	Outer margin of hindwing with apex pro- duced
32.	Abdomen constricted at second segment 33 Abdomen not constricted
33.	Inner margins of hindwing with a distinct lobe
	Inner margin of hindwing evenly rounded  Aethria
34.	Wings hyaline except for fine borders at margins of wings; most of abdomen with large lateral tufts of crimson-colored
	hair
35.	Palpi upturned with third joint continuing
	the line of direction
36.	Hindwing with vein M <sub>2</sub> arising close to or stalked with vein M <sub>3</sub>
	Hindwing with vein M <sub>2</sub> widely separated from vein M <sub>3</sub>
	Hindwing with vein M <sub>2</sub> and vein M <sub>3</sub> from cell

37. Hindwing with vein  $M_{2+3}$  from cell... Euagra

- - hoods inconspicuous. Forewing facies a complex series of spots......Eucereum Base of abdomen smoothly scaled, tympanic hoods conspicuous. Forewing facies simple ...........Napata

### CTENUCHINAE

In this subfamily vein M<sub>2</sub> in the hindwing is never atrophied. In the instances in which vein M<sub>2</sub> and M<sub>3</sub> are forked or very occasionally completely fused, veins Cu<sub>1</sub> and Cu<sub>2</sub> are widely separated. In the Trinidad Ctenuchinae only Euagra has veins M<sub>2</sub> and M<sub>3</sub> on a long stem. Vein M<sub>2</sub> is widely separated from vein M<sub>3</sub> in Horama with veins Cu<sub>1</sub> and Cu<sub>2</sub> forked and in Ceramidia and Amycles with veins Cu<sub>1</sub> and Cu<sub>2</sub> fused. In Eucereum vein M<sub>2</sub> arises from the base or near the base of the short stem of veins M<sub>3</sub> and Cu<sub>1</sub>.

### Dinia Walker

The single species can be separated readily from other ctenuchid species of Trinidad by the carmine-colored lateral tufts along the flattened abdomen. 48 figs.

# Dinia aeagrus (Cramer) (Pl. II, Fig. 1)

Sphinx eagrus Cramer, 1779: 10, pl. 198, fig. C. Dinia aeagrus, Hampson, 1898: 338, fig. 158. Dinia mena, Hampson, 1898: 339. Dinia aeagrus, Draudt in Seitz, 1915: 110, pl. 18c. Dinia mena, Draudt in Seitz, 1915: 110, pl. 18c. Dinia mena, Kaye & Lamont, 1927: 7. Dinia aeagrus, Travassos, 1957: 188-205, 4 pl. &

Travassos (1957) has exhaustively described and discussed this species, with an abundance of figures and plates.

Material.—Ten males and three females. Range.—Mexico to Argentina.

# Trichura Hübner

The constricted abdomen gives the species of this genus the appearance of vespid wasps. Some species which possess a long anal appendage have been likened to ichneumonids.

- 1. Abdomen immaculate, dull iridescent blue fumida
  - Abdomen with iridescent spots.....

### Trichura cerberus (Pallas)

Sphinx cerberus Pallas, 1772: 27, pl. 2, fig. 8. Zygaena caudata, Fabricius, 1777: 277. Cercophora urophora, Herrich-Schaeffer, 1855: 80, f. 266.

Trichura cerberus, Hampson, 1898: 342, fig. 160. Trichura cerberus, Draudt in Seitz, 1915: 111, pl.

Trichura cerberus, Kaye & Lamont, 1927: 7.

This species has been reported by Kaye & Lamont from St. Joseph at the southern foot of the Northern Range, but we have not taken it at Simla.

In Hampson's key (1898: 341) he places this species in his first section of the genus, which is characterized by having an anal appendage in the males. However, the presence of this appendage is variable in collected specimens, at least from British Guiana.

Range.—Venezuela and eastern South America to southern Brazil.

# Trichura fumida Kaye (Pl. II, Fig. 2)

Trichura fumida Kaye, 1914: 115.
Trichura fumida, Draudt in Seitz, 1915: 112, pl.

Trichura fumida, Kaye & Lamont, 1927: 7.

The original description is based on a female. The characters of the male place it in the first section of the genus in Hampson's key (1898:

341) as practically every specimen collected possesses a long scaled appendage on the terminal segment. Except for this appendage, the white-fronted palpi, the white procoxae and some white on the remaining coxae, the male is similar to the female.

Material.—Nineteen males and six females. Range.—Trinidad.

# Trichura coarctata (Drury) (Pl. II, Fig. 3)

Sphinx coarctata Drury, 1773: pl. 27, fig. 2.

Trichura coarctata, Hampson, 1898: 344, fig. 161.

Trichura coarctata, Draudt in Seitz, 1915: 112, pl. 18e.

Material.—Three males and three females.

Range.—Venezuela to southern Brazil. A new record for Trinidad.

### Aethria Hübner

The carmine-colored abdominal anal tuft separates the two Trinidad species of this genus from other ctenuchids. The carmine-colored tufts in *Dinia* are along the sides of the abdomen. In *Phoenicoprocta vacillans* of the Euchromiinae the anal segment has two sublateral terminal tufts in the males. In *Phoenicoprocta* only the males have terminal tufts while in *Aethria* both sexes have them.

# Aethria carnicauda (Butler) (Pl. II, Fig. 4)

Eunomia carnicauda Butler, 1876: 400.
Aethria carnicauda, Hampson, 1898: 349 (in part).
Aethria carnicauda, Hampson, 1914: 221.
Aethria carnicauda, Draudt in Seitz, 1915: 114, pl.

Aethria carnicauda, Kaye & Lamont, 1927: 7.

Aethria carnicauda, Beebe, 1953: 155-159, pls. I, II.

The Trinidad form may represent a new subspecies or species, but until material is available from other localities it would be unwise to describe this form. The Trinidad material differs from typical *carnicauda* primarily in lacking blue spots on the dorsum of the abdomen.

Material.—Twenty-three males and 12 females.

Range.—Trinidad, Venezuela and Brazil.

# Aethria aner Hampson (Pl. II, Fig. 5)

Aethria carnicauda Hampson, not Butler, 1898: 349, pl. XII, fig. 9 (in part).

Aethria aner Hampson, 1905: 428.

Aethria aner, Hampson, 1914: 221, pl. XI, fig. 29. Aethria aner, Draudt in Seitz, 1915: 114, fig. 18h.

The iridescent blue dorsal abdominal bands separate this species from carnicauda.

Material.—One male taken on January 28.

Range.—Described from Venezuela and a form, auriflua Draudt, has been described from French Guiana. Aethria aner is a new record from Trinidad.

### Aethria jacksoni Kaye

Aethria jacksoni Kaye, 1924: 418, pl. XLV, fig. 6. Aethria jacksoni, Kaye & Lamont, 1927: 8, pl. 2, fig. 6.

The description and figures of this species lead me to believe that it can hardly be anything else than the female of *Aethria aner*. I am not synonymizing *jacksoni*, only because as yet we have not collected any females of *aner* in Trinidad.

Range.—Described from one specimen collected in Trinidad.

### Urolasia Hampson

Wasp-like moths with the basal segment of the abdomen constricted and with small hindwings. Vein M<sub>2</sub> united with vein M<sub>3</sub> in the hindwing.

### Urolasia brodea (Schaus) (Pl. II, Fig. 6)

Syntrichura brodea Schaus, 1896: 132. Urolasia brodea, Hampson, 1898: 370, fig. 181. Urolasia brodea, Draudt in Seitz, 1915: 123, pl. 19g. Urolasia brodea, Kaye & Lamont, 1927: 8.

This species was described from Trinidad material and is also the species type. The genus contains two other species, opalocincta Druce from French Guiana, with white opalescent subdorsal abdominal bands, and albipuncta Druce from Venezuela, with dorsal and subdorsal white abdominal spots. Our Trinidad species, brodea, has metallic blue bands.

Material.—Fourteen males and two females. Range.—Trinidad and British Guiana.

### Chrysostola Herrich-Schaeffer

Our one species of this genus is a bright-colored small moth with the base of the abdomen hardly constricted. This genus can be separated from *Urolasia* by having vein M<sub>2+3</sub> of the hindwing from above the lower angle of the cell rather than from the angle of the cell. This species is listed in Seitz under the genus *Abrochia*.

### Chrysostola fulvisphex Druce (Pl. II, Fig. 7)

Chrysostola fulvisphex Druce, 1898: 404. Chrysostola fulvisphex, Hampson, 1898: 377, pl. XIII, fig. 13.

Abrochia fulvisphex, Draudt in Seitz, 1915: 125, pl. 19k.

The yellow-and-black-banded abdomen of this species is distinctive for this subfamily in Trinidad and will separate this species from other ctenuchinae.

Material.-Two males.

Range.—Panama to the Amazons. A new record from Trinidad.

### Cercopimorpha Butler

This genus differs from the two preceding genera in having three median veins in the hindwing. However, vein  $M_3$  is forked with vein  $Cu_1$ . Vein  $R_s$  is also forked with  $M_1$ .

# Cercopimorpha dolens (Schaus) (Pl. II, Fig. 8)

Heliura dolens Schaus, 1905: 191.

Cercopimorpha dolens, Hampson, 1914: 239, pl. XII, fig. 30.

Heliura dolens, Draudt in Seitz, 1915: 168.

Cercopimorpha dolens, Draudt in Seitz, 1915: 206, pl. 28n.

A brown moth with the area in the lower part of the cell and just below the cell semi-hyaline.

Material.—One male collected on January 2.

Range.—Described from Venezuela. A new record from Trinidad.

### Episcepsis Butler

The dull brown, relatively unpatterned forewings of this genus are helpful in separating four of its species. The remaining species, *venata*, while having a pattern, nevertheless has fully scaled forewings. Species of *Eriphioides* and *Ceramidia* in Trinidad also correspond in having unpatterned wings, but the collar in *Epicepsis* is dull brown while it is iridescent in the other two genera.

The hindwing of the males of Lenaeus and the new species have a large anal lobe containing a long, bulky hair-pencil within the wingfold. This hair-pencil is usually conspicuous. The above two species are in Section I of Hampson (1898: 385). On the other hand, the males of hypoleuca, redunda and venata have the tornus of the hindwing only slightly produced and the hair-pencil is frequently hidden within the wingfold. These three species are in Section II of Hampson (1898: 386).

- Forewing with white apical patch....lenaeus Forewing without white apical patch..... 4
- Forewing with light brown apical patch (more apparent on underside of wing)

lenaeus, variant

hypoleuca
Forewings with veins concolorus....redunda

# Episcepsis lengeus (Cramer) (Pl. II, Fig. 9)

Sphinx lenaeus Cramer, 1780: pl. 248G.
Episcepsis lenaeus, Hampson, 1898: 385.
Episcepsis lenaeus, Draudt in Seitz, 1915: 129, fig. 20b.

Episcepsis lenaeus, Kaye & Lamont, 1927: 8.

In four male specimens the white apical patch on the upperside of the forewing is greatly reduced in area and light brown rather than white. On the underside of the forewing the apical patch is also reduced in size but is more conspicuous as it is much lighter than on the upperside. The patch on the underside in two of the specimens is brownish-white rather than light brown.

Materials.—Fourteen males and two females. Range.—Mexico to the Guianas.

# Episcepsis pseudothetis, new species (Pl. I, Figs. 1, 2)

Type Material.—All of the types were taken at Simla, Arima Valley, Trinidad. Holotype, male, Catalog No. 58101, 26-II; allotype, female, (56102) 26-XII; paratypes, males, (56103) 2-V, (56104) 14-I, (56105) 9-III, (56106) 18-IV; female, (56107) 2-I.

Disposition of Type Material.—The Department of Tropical Research, New York Zoological Society, retains paratypes 56106 and 56107. The holotypes, allotype and remaining paratypes are in the American Museum of Natural History.

Differential Diagnosis. — Episcepsis pseudothetis is superficially similar to thetis, but thetis
is larger, the veins of the forewing are not contrastingly lighter than the remainder of the
wing, and the apical white patch is larger as it
extends further along the costal margin of the
forewing. Furthermore, the hair-pencil in the
hindwing is yellow in thetis, not almost white
as in pseudothetis. Hampson described a species,
rhypoperas, from Honduras that is smaller than
thetis, has contrastingly lighter veins and a more
extensive white abdominal ventrum (probably
more extensive than pseudothetis), but the spot-

ting about the hindhead and shoulders is orange and the hair-pencil is white but not on a pronounced projection of the inner margin of the hindwing. A species described from Venezuela, *klagesi*, has the hair-pencil on the inner margin of the hindwing yellow.

The name *pseudothetis* refers to the insect's superficial resemblance to *thetis*.

Description.—Length of forewing of male 14.5-15.5 mm., of female 16 mm. Antennae bipectinate with each pectination dilated and bristled. Palpi upturned and brown with tuft of white hair on first joint. Front and vertex of head brown. Back of head with paired crimson-colored spots and a crimson-colored spot on each side of prothorax behind eyes. Collar, tegulae and disc of thorax brown. Forecoxae white, the remainder of the legs brown. Ventrum and laterum of thorax brown.

Forewing clove brown (Ridgway, 1912, pl. 40) in fresh specimens and olive brown (*ibid.*, pl. 40) in older specimens with lighter veins, drab gray to light drab (*ibid.*, pl. 46). Apex of wing white. The white apical patch extending from the costa to vein M<sub>1</sub>. It terminates abruptly at M<sub>1</sub>; thus, the inner edge of the apical patch is two-sided. Underside of forewing a little darker than upperside with the apical white the same. Veins concolorous with the ground color of the wing.

Hindwing with disc semi-hyaline and margins of wing brown with a bluish cast, the latter most pronounced on the costal margin. Inner margin produced with a fold on the upper side of the wing enclosing an off-white hair-pencil in both males and females. Underside of hindwing the same as upperside but the brown color a little darker.

Abdomen with tympanic hoods conspicuous and covered with brown hair with a bluish sheen. The brown hair of the thorax is continued on the mid-dorsum of the first four abdominal segments. The remainder of the abdominal segments, including the sides of the first four segments, iridescent blue. Ventrum of abdomen with the basal three segments white, and the two subsequent segments have the anterior edge white. The caudal segments dark brown.

# Episcepsis hypoleuca Hampson (Pl. II, Fig. 10)

Heliura lamia Druce, not Butler, 1884: 74 (part). Episcepsis hypoleuca Hampson, 1898: 388, pl. XIV, fig. 4.

Episcepsis hypoleuca, Draudt in Seitz, 1915: 130, pl. 20d.

Episcepsis inornata, Kaye & Lamont, not Walker, 1927: 8.

I do not follow Kaye & Lamont (idem) in synonymizing hypoleuca under inornata. The salient difference between inornata and hypoleuca is that in the latter the veins of the forewings are dark brown and in the former the veins are concolorous with the remainder of the wing. Kenedy, after examining the holotype, tells me that the wings of the holotype of inornata are in poor condition and that it is difficult to determine whether the veins are darker than the ground color of the wings. The photograph of the holotype shows that the wings are badly rubbed except at the proximal area of the wings. Kenedy states that the veins are concolorous with the remainder of the wings near the bases of the wings. The other difference between inornata and hypoleuca mentioned by Hampson in his key (1898: 386), namely, the dark abdominal ventrum (inornata) and the white abdominal ventral patches on the three basal segments (hypoleuca), are a sexual difference and not a difference between the species. The holotype of inornata is a female and the holotype of hypoleuca is a male. Sexual dimorphism is probably of a similar type in both species.

Hampson (1914: 243) synonymized dodaba Dyar under inornata. Forbes (1939: 142) considers dodaba a form of lamia Butler with reduced collar spots. These three forms, inornata, dodaba and lamia, differ from hypoleuca by having the veins of the forewing concolorous with the remainder of the wing rather than with the dark streaks on the veins characteristic of hypoleuca. The red spot on the anterior margin of the shoulder covers of dodaba and lamia will separate these two forms from inornata and hypoleuca.

In the Trinidad series of hypoleuca the males have the ventrum of the three basal segments of the abdomen white and the females have the ventrum of the abdomen black with the exception of one female specimen with a small amount of white on the basal segments.

Material.—Twenty-nine males and 18 females. Range.—Costa Rica and Panama.

# Episcepsis redunda Schaus (Pl. II, Fig. 11)

Episcepsis redunda Schaus, 1910: 190. Episcepsis redunda, Draudt in Seitz, 1915: 130, fig. 20c.

Episcepsis redunda, Kaye & Lamont, 1927: 8.

Material.—Only one female specimen has been collected at Simla.

Range.-Mexico to the Guianas and Peru.

# Episcepsis venata Butler (Pl. II, Fig. 12.)

Episcepsis venata Butler, 1877: 49, pl. 16, fig. 7.

Heliura aelia Schaus, 1889: 90. Episcepsis venata, Hampson, 1889: 388. Episcepsis venata, Draudt in Seitz, 1915: 130, fig-20d.

The smoky hyaline areas of the forewings separate this species from other Trinidad species of Episcepsis. The figure in Seitz is not suggestive of the species as it exists in Trinidad. The dark scaling is heavy at the tornus of the forewing in the Trinidad material as far as vein Cu<sub>1</sub> but may be traced to vein M<sub>2</sub>. It extends almost halfway along the inner margin. The anterior edge of the patch lying on vein Cu1 is directly below the discal bar. In Seitz's figure the patch is restricted to the immediate region of the anal angle. In the photograph of the holotype from "R. Jutaki, Amazons," the tornal patch is intermediate between Seitz's figure and our Trinidad material but differs from both Seitz's figure and the Trinidad material in having the area between the inner margin and vein 2d A dark-scaled to the base of the wing. The dark scaling at the apex of the forewing is reduced in Seitz's figure in comparison with the Trinidad material and the holotype. The pattern of the Trinidad material is more contrastive than either the holotype or Seitz's figure and may represent a new race.

In Kenedy's notes regarding the female holotype she mentions the presence of diffused white on the basal segments of the abdominal venter. We have one female specimen with a white venter of this nature, but the remainder of the females have a completely black abdominal ventrum. This type of variation in female abdominal ventrums is mentioned in connection with hypoleuca.

Material.—Six males and seven females.

Range.—Mexico to the Amazons. A new record for Trinidad.

### Eriphioides Kirby

This genus, along with Ceramidia and Amycles, may be separated from other Ctenuchinae by the fact that the upper of the three posterior veins issuing from the discal cell of the hindwing is separated from the lower two connate veins by a distinct space. In other words, veins Cu<sub>1</sub> and Cu<sub>2</sub> are united and connate with vein M<sub>3</sub> and arise from the lower angle of the cell, while vein M<sub>2</sub> arises approximately a third of the way up the discocellular veins. The three genera are very closely related. Hampson distinguishes Eriphioides from Ceramidia and Amycles by the lateral anal abdominal tufts present in Eriphioides.

# (Pl. II, Fig. 13)

Eriphia tractipennis Butler, 1876: 414.

Eriphia tractipennis, Druce, 1884: 69, pl. 7, fig. 27. Eriphioides tractipennis, Hampson, 1898: 394. Eriphioides tractipennis, Draudt in Seitz, 1915: 132,

Eriphioides tractipennis, Lamont & Callan, 1950:

197.

pl. 26m.

The abdomen of this species has a dorsal and subdorsal series of iridescent green spots. The abdominal iridescence in *Episcepsis* species is blue. The dorsum of the abdomen of the following species, *Ceramidia phemonoides*, is an immaculate iridescent cupreous green. The abdomen of *Amycles anthracina* is black-brown. Reported from Mayaro by Lamont & Callan.

Material.—One male.

Range.—Honduras to Brazil.

### Ceramidia Butler

The males of this and the preceding genus are singularized by the presence on the costal half of the hindwing of a lustrous, silky gray area.

# Ceramidia phemonoides (Möschler) (Pl. II, Fig. 14)

Antichloris phemonoides Möschler, 1877, 639, pl. 8, figs. 10, 10a.

Ceramidia phemonoides, Hampson, 1898: 397. Ceramidia phemonoides, Draudt in Seitz, 1915: 134, pl. 20i.

Ceramidia phemonoides, Kaye & Lamont, 1927: 9.

Material.—Twenty-eight males.

Range.-Venezuela, Guianas and Amazons.

### Amycles Herrich-Schaeffer

For a discussion of the nomenclature of this generic name, refer to Forbes, 1939: 144.

# Amycles anthracina (Walker)

(Pl. II, Fig. 15)

Euchromia (Amycles) anthracina Walker, 1854: 253.

Amycles anthracina, Hampson, 1898: 398, fig. 201. Amycles anthracina, Draudt in Seitz, 1915: 135, pl. 20i.

Amycles anthracina, Kaye & Lamont, 1927: 9. Amycles affinis Rothschild, 1912: 153.

Amycles affinis, Hampson, 1914: 253, pl. XIII, fig.

Amycles affinis, Draudt in Seitz, 1915: 135, fig. 20k. Amycles affinis, Lamont & Callan, 1950: 197.

Hampson synonymized Felder's adusta under anthracina. Rothschild's affinis should also be synonymized. Walker's and Rothschild's holotypes came from Venezuela. The significant difference between anthracina and affinis, according to Rothschild's original description, is size. Rothschild gave the length of the forewing of anthracina as 20 mm. and of affinis as 14 mm. Hampson (1914: 253) gave 28-34 mm. for the wing expanse of anthracina and 30 mm. for the wing expanse of the holotype of affinis. In the

photographs of the holotypes of affinis and anthracina before me, if there is any difference in the size between affinis and anthracina, the former—contrary to Rothschild's statement—is slightly larger. The specimens from Trinidad in our collection vary in length of forewing from 12 to 14 mm. The abdominal ventrum in our specimens varies slightly from dark brown to brownish-black. Kenedy states that the tarsi of the holotype of affinis are lighter than the rest of the legs. The color of the tarsi in our Trinidad specimens varies but is always somewhat lighter. Kenedy makes no comment regarding any difference in size between anthracina and affinis, so I conclude that any difference is negligible.

Material.—Five males and one female.

Range.—Mexico to Colombia and Brazil.

#### Antichloris Hübner

The males of this genus have the costal half of the hindwing clothed with lustrus, silky gray scales as in Amycles, Eriphioides and Ceramidia. However, in this genus vein Cu<sub>2</sub> of the hindwing is free and not united with vein Cu<sub>1</sub> and arises well before the end of the discal cell. One species recorded in this genus by Kaye & Lamont, Antichloris trinitatis Rothschild, was synonymized in Part I of this paper under Phoenicoprocta vacillans (Walker).

# Antichloris eriphia (Fabricius) (Pl. II, Fig. 16)

Zygaena eriphia Fabricius, 1777: 276. Sphinx alecton Stoll, 1782: pl. 382 D.

Antichloris phemonoë Hübner, 1827: pl. 9, figs. 15, 16.

Sesia melanochloros Sepp, 1848: 145, pl. 69. Copoena scapularis Herrick-Schaeffer, 1856: fig.

Chrysostola helus Herrick-Schaeffer, 1855: fig. 263.

Antichloris quartzi Klages, 1906: 548. Antichloris eriphia, Hampson, 1898: 400.

Antichloris eriphia, Draudt in Seitz, 1915: 136, pl. 20k.

Antichloris eriphia, Kaye & Lamont, 1927: 9.

This species may be separated from the species in the other genera that have males with the costal margin of the hindwing silky by its larger size and the iridescent green streaks in the forewing.

Material.—Eleven males and one female. Range.—Venezuela to Paraguay.

### Napata Walker

The genus is made up of moths of quite varied pattern. One species, Napata albiplaga, might be confused with members of the preceding four genera but has four veins from the lower part of the discal cell in the hindwing instead of the three veins characteristic of the pre-

vious genera. Vein M<sub>2</sub> of the hindwing is near the lower angle of the cell and not distant as in some subsequent genera.

- 4. Forewing with cilia at apex of wing white and hyaline streaks in and below discal cell. Wing expanse 24-27 mm.....terminalis Forewing with cilia at apex of wing concolorous with wing and subquadrangular hyaline spots in median area. Wing expanse 46 mm.....broadwayi

# Napata walkeri (Druce) (Pl. II, Fig. 17)

Evius walkeri Druce, 1889: 86. Evius walkeri, Druce, 1897: 365, pl. 73, fig. 21. Napata walkeri, Hampson, 1898: 407. Napata walkeri, Draudt in Seitz, 1915: 139, pl. 21c. Napata walkeri, Kaye & Lamont, 1927: 9.

This distinctive species is very similar to another moth, *Mapeta xanthomelas* Walker, a pyralid, that also occurs in Trinidad. The black epaulet-like bars are in the spaces between the veins in *walkeri* and on the veins in *xanthomelas*.

Material.—Seventeen males and two females. Range.—Costa Rica, Panama, Venezuela and Trinidad.

# Napata alternata (Walker) (Pl. II, Fig. 18)

Josia alternata Walker, 1864: 134. Flavinia choana Druce, 1893: 289.

Napata alternata, Hampson, 1914: 261, pl. XIV, fig. 14.

Napata alternata, Draudt in Seitz, 1917: 208, pl. 29d.

Material.—One male collected on March 19, 1955, on *Heliotropium indicum*, during the daytime.

Range.—Venezuela, Brazil and Ecuador. A new record for Trinidad.

# Napata albiplaga (Walker) (Pl. II, Fig. 19)

Euchromia albiplaga Walker, 1854: 218. Charidea apicalis Herrick-Schaeffer, 1854, fig. 236. Napata albiplaga, Hampson, 1898, 409. Napata albiplaga, Draudt in Seitz, 1915: 140, pl. 21e. Material.—One female on May 31.

Range.—Mexico to Brazil. A new record for Trinidad.

# Napata terminalis (Walker) (Pl. II, Fig. 20)

Euchromia terminalis Walker, 1854: 231.

Napata leucotelus Butler, 1876: 409.

Napata leucotelus, Druce, 1884: 66, pl. 7, fig. 24.

Napata terminalis, Hampson, 1898: 411, pl. XIV,

Napata leucotelus, Hampson, 1898: 411. Napata venezuelensis Klages, 1906: 549.

Napata teminalis, Draudt in Seitz, 1917: 141, pl. 21f.

Napata leucotelus, Draudt in Seitz, 1917: 141, pl. 21f.

Napata terminalis, Kaye & Lamont, 1927: 9. Napata leucotelus, Kaye & Lamont, 1927: 9.

The male holotype of terminalis from Pernambuco, Brazil, in the British Museum (Natural History) is in good condition and the female holotype of leucotelus from Honduras is in poor condition. Hampson (1898: 406, 411) differentiates the two species by the relative degree of opacity of the hyaline areas in the forewings. In terminalis the forewing has "slight traces of hyaline patches in and below cell" or "without prominent hyaline streaks in and below cell." This is not borne out by the photograph of the male holotype of terminalis in which the aforementioned hyaline areas are as distinct as in the photograph of the female holotype of leucotelus. In our series of specimens from Trinidad the hyaline areas of the forewing vary evenly from a condition that could be called traces to a distinctly hyaline condition though even in the latter case many scales are evident under very low magnification. Our series of specimens strongly suggests that the relative distinctiveness of the hyaline areas is connected with the age of the moth. The amount of white at the apex of the forewing and tornus and inner margin of the hindwing is also variable. The only observable difference other than sex between the holotypes of terminalis and leucotelus is wing expanse size, a character of doubtful validity in this group. The holotype of terminalis is a male specimen and not female as Hampson states. The Trinidad material ranges in wing expanse from 24 to 27 mm, with the males slightly smaller than the females. Kenedy was unable to make any comments on the abdominal characters, due to the poor condition of the type leucotelus.

Material.—Sixty males and 21 females. Range.—Mexico to Brazil.

#### Napata broadwayi (Schaus)

Syntomeida broadwayi Schaus, 1896: 130.

Napata broadwayi, Hampson, 1898: 413, fig. 213. Napata broadwayi, Draudt in Seitz: 142, pl. 21g. Napata broadwayi, Kaye & Lamont, 1927: 10.

We have not collected this species. The type in the United States National Museum is a male labelled "Trinidad." The British Museum (Natural History) has another male labelled "Trinidad" and a female from Carabaya, Peru.

Range.-Trinidad and southeast Peru.

### Horama Hübner

Moths similar in facies to Eriphioides but with all veins present from the lower angle of the discal cell. Veins Cu<sub>1</sub> and Cu<sub>2</sub> on a long stem. No specialized scales similar to Eriphioides, Ceramidia and Amycles in the costal area of the hindwing of the male.

### Horama oedippus (Boisduval)

Mastigocera oedippus Boisduval, 1870: 81. Mastigocera oedippus, Druce, 1884: 49, pl. 6. fig. 19.

Horama oedippus, Hampson, 1898: 418. Horama oedippus, Draudt in Seitz, 1915: 143, pl. 26m.

Horama oedippus, Kaye & Lamont, 1927: 10.

Kaye & Lamont (1927:10) report *oedippus* from Rock-Penal Road, Trinidad, in May. The moth has immaculate purplish-fuscus wings and may be separated from similar moths in Trinidad by the three fringes of long hair on the distal part of the tibiae. The first joint of the tarsi are fringed on each side with hair.

Range.-Mexico and Guatemala.

### Cyanopepla Clemens

Large arctiid-like species, heavily scaled, often with iridescent facies and bright colors.

 Forewing with a short crimson-colored streak below base of cell, hindwing with large crimson-colored costal patch...cinctipennis Forewing with long orange fascia below base of cell to beyond middle of wing, metallic green streak and crimson-colored spot beyond cell of hindwing small....submacula

# Cyanopepla cinctipennis (Walker) (Pl. II, Fig. 21)

Charidea cinctipennis Walker, 1864: 97. Charidea azetas Druce, 1864a: 35.

Cyanopepla cinctipennis, Hampson, 1898: 442, pl. XV, fig. 5.

Cyanopepla cinctipennis, Draudt in Seitz, 1915: 151, pl. 22g.

The black forewing with the bright red stripe at the base of the wing and the iridescent blue hindwings with a large crimson-colored patch at the outer margin of the wing distinguish this species from other ctenuchids in Trinidad.

Material.-One female specimen on March

Range.—Colombia, Venezuela and Ecuador. A new record for Trinidad.

# Cyanopepla submacula (Walker) (Pl. II, Fig. 22)

Euchromia submacula Walker, 1854: 214.
Euchromia submacula, Butler, 1877: 41, pl. 13,

Cyanopepla submacula, Hampson, 1898: 444. Cyanopepla submacula, Draudt in Seitz, 1915: 152, pl. 22h.

Cyanopepla submacula, Kaye & Lamont, 1927: 10.

Kaye & Lamont list this species from Port of Spain (Botanical Garden) and Morne Diable. I have specimens that F. W. Urich collected as larvae from Chaguanas on corn (Zea mays) and from an unknown locality on March 1, on gamelot (Chaetochloa sulcata). We have not collected this species in the Arima Valley.

Range.—Mexico, Guatemala, Panama and Venezuela.

### Aclytia Hübner

The yellow or white spot or band on the fullyscaled forewings of the Trinidad species distinguishes these moths.

1. Fascia on forewing white

leucaspila, new species
Fascia on forewing yellow.....heber

# Aclytia heber (Cramer) (Pl. II, Fig. 23)

Sphinx heber Cramer, 1780: pl. 287 A.
Sphinx halys Stoll, 1782: pl. 357 C.
Aclytia flaviventris Möschler, 1872: 349.
Aclytia heber Hampson, 1898: 457, fig. 245.
Aclytia heber, Draudt in Seitz, 1915: 152, pl. 23f.
Aclytia heber, Kaye & Lamont, 1927: 10.

The male of these species has a yellow spot and the female an oblique yellow band on the forewing.

Material.—Three males and one female.

Range.—Central America and Cuba to Brazil.

# Aclytia leucaspila, new species (Pl. I, Figs. 3, 4)

Type Material.—Holotype, male, Catalog No. 58107, IV-5, at night, visiting Heliotropium indicum; paratype, male, (58108) with no date.

Disposition of Type Material.—The holotype is deposited in the American Museum of Natural History, and the Department of Tropical Research, New York Zoological Society, retains the paratype.

Differential Diagnosis. — Aclytia leucaspila may be distinguished from other Aclytia species by the white spot on the forewings. The species superficially resembles Aclytia heber (Cramer) which has an orange-colored spot rather than a

white spot. It is probably closely related to *Aclytia albistriga* Schaus. Schaus's original description of *Aclytia albistriga* is based on a female from Costa Rica. Forbes (Bull. Mus. Comp. Zool., LXXXV, No. 4: 146-147) had a male from Panama with the forewing banded similar to the female. *Aclytia leucaspila* may be separated from *Aclytia albistriga* by the white spot on the forewing instead of the white band.

The name, *leucaspila*, refers to the white spot on each of the forewings.

Description.—Length of forewing of male 14 mm.

Head brown. Frons edged with white at eyes and before antennae. Tongue and basal segment of palpi orange, remainder of palpi brown. Back of head with two orange-colored subdorsal spots and tegulae with orange at lateral tips.

Thorax brown. Patagia brown with an orange-white middle line. Forecoxae brown with broad white band, meso- and metathoracic coxae brown with some white scales on anterior and posterior edges. Remainder of legs brown with some white scales along posterior edge of femur.

Dorsum of abdomen dark brown with green reflections in different lights. Ventrum of abdomen white with subventral tufts of last segment brown.

Forewing dark brown, the veins lighter. The discal radial vein, the anal vein (2d A, 3d A) and the first anal fold from the base to the middle of the wing orange-gray. The remaining veins in oblique lighting cast a bluish reflection; in the same oblique lighting a blue line will form in the space below the anal vein. A suborbicular white spot at end of cell, partly in cell and bounded by veins M<sub>1</sub> and M<sub>2</sub> outside of the cell. Underside of forewing with the inner margin gray. Hindwing blackish-brown with blue reflections. A hyaline fascia below the cell and in and beyond the lower angle of the cell. Costal margin gray.

Genitalia with the left harpe narrow and right harpe much broader. The right harpe narrows abruptly from the dorsal edge at approximately two-thirds from the base. Uncus with two rounded ridges at edge in basal area which meet to form one ridge near middle. Caudal end of uncus narrow but blunt. The harpes in Aclytia heber are very different. The left harpe is comparatively broad with a large toothlike structure at the caudal end of the dorsal margin and the right harpe is long and needlelike, arising from an extremely broad base. The left harpe of Aclytia gynamorpha Hampson has a small tooth on the dorsal margin before the apex of the

harpe and the right harpe stout with the end turned up sharply at right angles.

### Euagra Walker

The species in this genus and the subsequent genus, Agyrta, are relatively large with a pattern resembling that found in the butterfly family Ithomiidae and the moth family Dysschematidae. Veins M<sub>2</sub> and M<sub>3</sub> of the hindwing are stalked in Euagra and approximate at origin in Agyrta in Trinidad species.

### Euagra intercisa Butler

Euagra intercisa Butler, 1876a: 111. Euagra intercisa, Hampson, 1898: 464, pl. XVI, fig. 8.

Euagra intercisa, Draudt in Seitz, 1915: 160, pl. 23i. Euagra intercisa, Kaye & Lamont, 1927: 10.

Kaye & Lamont report this species from Trinidad with no locality. We have not taken it in the Arima Valley. This species lacks the apical, hyaline band in the forewing that is present in each of the three species of the next genus, Agyrta.

Range.—Venezuela.

### Agyrta Hübner

- Discal cell of forewing hyaline only in vicinity
  of vein Cu<sub>2</sub>.....micilia
  Discal cell hyaline to near base of cell..auxo

# Agyrta dux (Walker) (Pl. II, Fig. 24)

Dioptis dux Walker, 1854: 327.

Agyrta aestiva Butler, 1876a: 113.

Isostola superba Druce, 1884: 115, pl. 12, fig. 5.

Agyrta phylla Druce, 1893: 282.

Agyrta dux, Hampson, 1898: 469, fig. 257.

Agyrta dux, Draudt in Seitz, 1915: 162, pl. 24a.

Agyrta dux, Kaye & Lamont, 1927: 10.

This is the largest of the three species of *Agyrta* species, the wing expanse measuring two inches or more.

Material.—Three males and two females. Range.—Central America to Brazil.

# Agyrta micilia (Cramer) (Pl. II, Fig. 25)

Bombyx micilia Cramer, 1780: pl. 228G. Agyrta micilia, Hampson, 1898: 470. Agyrta micilia, Draudt in Seitz, 1915: 162, pl. 24a. Agyrta micilia, Kaye & Lamont, 1927: 10.

Expanse of wings about one and three quarter inches.

Material.— Two males.

Range.—Panama to Brazil and Ecuador.

# Agyrta auxo (Linnaeus) (Pl. II, Fig. 26)

Sphinx auxo Linnaeus, 1767: 805. Agyrta auxo, Hampson, 1898: 471.

Agyrta auxo, Draudt in Seitz, 1915: 162, pl. 24a. Agyrta auxo, Kaye & Lamont, 1827: 11.

Expanse of wings about one and a half inches. *Material.*—One female taken on April 29. *Range.*—Venezuela to Brazil.

### Delphyre Walker

Similar to Eucereum but veins M<sub>3</sub> and Cu<sub>1</sub> of the hindwing united.

# Delphyre hebes Walker (Pl. II, Fig. 27)

Delphyre hebes Walker, 1854: 537. Nodoza tristis Schaus, 1896: 150.

Delphyre hebes, Hampson, 1914: 292, pl. XVI, fig. 21.

Delphyre hebes, Draudt in Seitz, 1915: 165, pl. 29m. Delphyre hebes, Kaye & Lamont, 1927: 11.

Material.-Ten males.

Range.—Central America and Puerto Rico to Argentina.

### Delphyre minuta (Möschler)

Eucereon minutum Möschler, 1877: 651, pl. 9, fig.

Delphyre minuta, Hampson, 1898: 479. Eucereon trinita Schaus, 1901: 44.

Heliura griseipuncta Rothschild, 1912: 170.

Delphyre minuta, Hampson, 1914: 295, pl. XVI, fig. 26.

Delphyre minuta, Draudt in Seitz, 1915: 165, pl. 24d

Eucereon trinita, Kaye & Lamont, 1927: 12.

This species is very similar to *Eucereum rosina* (p. 98), but besides the difference in venation of the hindwing, the black spots of the forewing of *rosinum* are edged with yellow. We have not collected this species in the Arima Valley. The type of the synonymized *trinita* Schaus came from Trinidad but has no specific locality. *Range.*—Venezuela, Trinidad and Guianas.

# Delphyre discalis (Druce) (Pl. II, Fig. 28)

Neacerea discalis Druce, 1905: 463. Delphyre infra-alba Rothschild, 1912: 166.

Delphyre discalis, Hampson, 1914: 301, pl. XVII, fig. 11.

Delphyre discalis, Draudt in Seitz, 1915: 165.

Material.-Thirteen males.

Range.—Described from Venezuela and recorded from French Guiana. A new record from Trinidad.

# Delphyre dizona (Druce)

(Pl. II, Fig. 29)

Neacerea dizona Druce, 1898: 406.

Neacerea dizona, Hampson, 1898: 481, pl. XVI, fig. 12.

Delphyre dizona, Draudt in Seitz, 1915: 165, pl. 24d.

Delphyre dizona, Kaye & Lamont, 1927: 11.

In dizona both hyaline transverse bands of the forewing are narrower than in discalis. The inner margin of the hyaline median band in discalis extends to the antemedian area below the discal cell, whereas in dizona the inner margin of the hyaline median band is straight.

Material.—Six males.

Range.—Trinidad, British and French Guiana.

### Helivra Butler

This genus is difficult to distinguish from *Eucereum* on present known generic characters. The Trinidad species, however, is a large smokyhyaline moth with patches of dark brown scales. Laterum of abdomen iridescent blue.

# Heliura suffusa (Lathy) (Pl. II, Fig. 30)

Neacerea suffusa Lathy, 1899: 120. Heliura suffusa, Hampson, 1914: 306, pl. XVII, fig. 19.

Heliura suffusa, Draudt in Seitz, 1915: 166 (Delphyre), pl. 24e.

Most species of Heliura have a facies resembling Eucereum, but suffusa, as its name implies, has an extremely vague pattern on the forewings. In the male almost all the hyaline area is dark and in the female the only hyaline area evident is beyond the discal cell. The semihyaline area in the female is much darker than the respective area in the male. The abdomen of this species is bulky and has a broad lateral band of iridescent blue scales in the male which is restricted to the basal abdominal segments in the female. The distal half of the coxae of the legs only are crimson-colored and not the whole coxae, as one might judge from the literature. Kenedy verified this feature in the holotype at the British Museum (Natural History). The species hecale Schaus (picticeps Hampson) has completely crimson-colored coxae and is presumably a sibling species. The ranges overlap in the Guianas.

Material.-Nine males and one female.

Range.-British Guiana. A new record for Trinidad.

### Eucereum Hübner

Fifteen species of this genus are reported from Trinidad, the largest number of species in any one genus. The pattern of the forewings is made up of lines and spots that are in most instances difficult to describe. In the following key I have used abdominal characters and have avoided using forewing patterns wherever possible, in an attempt to simplify the key. The abdominal patterns in our Trinidad species seem to be reliable. I have included Delphyre minuta in the key as the facies is so similar to the typical Eucereum pattern. We have not collected nor have I seen specimens of minuta nor specimens of Eucereum archias and sylvius.

The hindwings have a remnant of vein Sc, veins R<sub>s</sub> and M<sub>1</sub> approximate or very shortly stalked and vein M2 approximate to veins M3 and Cu<sub>1</sub> which are shortly stalked.

1. Abdomen immaculate bluish-black with some iridescence ...........obscurum Dorsum and laterum of abdomen with basal four segments black, then three crimson and terminal segment black.....cinctum Dorsum of abdomen immaculate crimson except for extremity..... Dorsum of abdomen with subtriangular black dorsal basal patch leaving but two or three bright-colored segments, but without middorsal, black points in bright-colored segments of abdomen..... Dorsum of abdomen with black mid-dorsal points or black transverse lines on metameres of bright-colored segments of abdo-

2. Hindwing with only three veins from lower part of cell. Ventral surface of abdomen Hindwing with four veins present though some stalked from lower part of cell. Ventrum of abdomen yellowish or pinkish.....

men ......

3. Hindwing black-brown with small semi-hyaline area below lower part of cell..... Hindwing hyaline white with blackish-brown restricted to margin of wing..... 5

4. Ventrum of abdomen pink.....mitigata Ventrum of abdomen yellow . . archias (male)

5. Ventrum of abdomen pink.....rosina Ventrum of abdomen yellow. archias (female)

6. Upper and lower sides of forewings without semi-hyaline white spots....pseudoarchias Upper and lower sides of forewings with some hyaline white spots.....

7. Underside of abdomen dark brown hyalinum (some) Underside of abdomen pink.....

8. Ground color of hindwing light brown and hyaline ......latifascia Ground color of hindwing dark brown. sylvius 9. Abdomen with black triangular or quadrate patch leaving only two or three bright-col-Abdomen with the larger part of abdomen 

10. Abdomen orange-yellow. Hindwing white hyaline with narrow, well defined terminal dark border .....setosum

Abdomen carmine. Hindwing with wide terminal border ..... 11

11. Subdorsum of abdomen carmine. Basal patch quadrate. Black points on bright-colored segments. Underside pink...obliquifascia

Subdorsum of abdomen concolorous with dark basal patch. Usually transverse metamere streaks on bright-colored segments. Underside of abdomen dark brown

hyalinum (most)

12. Underside of forewing without semi- or milky hyaline patches ......dentatum Underside of forewing with some semi- or 

13. Ground color of forewing white

dorsipunctum

Ground color of forewing brown..... 14 14. Whole of dorsum of basal two abdominal segments brown .....aeolum Only the mid-dorsum of basal abdominal segments brown ......maia

### **Eucereum archias** (Stoll)

Sphinx archias Stoll, 1790: pl. 14, figs. 6-10. Eucereon archias, Hampson, 1898: 485, fig. 269. Eucereon archias, Draudt in Seitz, 1915: 170, pl. 24g.

Eucereon archias, Kaye & Lamont, 1927: 11.

Kaye & Lamont record this species from Palmiste and the larvae on orange. We have not taken it at Simla. It is the type species of the genus but is distinctive from other species in the genus in having long lateral pencils of hair from the basal abdominal segment in the male.

# **Eucereum cinctum Schaus** (Pl. III, Fig. 1)

Eucereon cinctum, Schaus, 1896: 134. Eucereon cinctum Hampson, nec Schaus, 1898: 486, fig. 271.

Eucereon cincta, Hampson, 1914: 317, 234, pl. XVIII, fig. 19.

Eucereum cinctum, Draudt in Seitz, 1915: 171. Eucereon cinctum, Kaye & Lamont, 1927: 11.

The holotype of this species was described from Aroa, Venezuela, not Trinidad as reported in Kaye & Lamont and Draudt.

Material.—Six males and four females. Range.-Venezuela and Trinidad.

### Eucereum obscurum (Möschler) (Pl. III, Fig. 2)

Aclytia obscura Möschler, 1872: 348. Epanycles stellifera Butler, 1877: 48, pl. 16, fig. 10. Eucereon obscurum, Hampson, 1898: 490. Eucereum obscurum, Draudt in Seitz, 1915: 171, pl. 24g.

The facies of this species is not of the type associated with *Eucereum*. However, the bluish-black abdomen, combined with black wings overlaid with a complex pattern of gray or white scales, is distinctive.

Material.—Forty males and eight females.

Range.—Mexico to the Amazons. A new record for Trinidad.

# Eucereum rosina (Walker) (Pl. III, Fig. 3)

Euchromia rosina Walker, 1854: 270. Carales imprimata Walker, 1864: 305.

Eucereum rhodophila Druce, nec Walker, 1884: 86 (in part).

Eucereon rosinum, Hampson, 1898: 492, pl. XVI, fig. 18.

Eucereum rosina, Draudt in Seitz, 1915: 172, pl. 24i. Eucereon rosinum, Kaye & Lamont, 1927: 11.

The small size and the immaculate carminecolored abdomen are distinctive.

Material.—Thirty-nine males and two females. Range.—Mexico to southern Brazil.

# Eucereum mitigata Walker (Pl. III, Figs. 4, 5)

Eucerea mitigata Walker, 1856: 1639.

Eucereon punctatum Hampson, not Guerin-Meneville, 1898: 494.

Eucereon punctatum, Hampson, not Guerin-Meneville, 1914: 319.

Eucereum punctatum, Draudt in Seitz, not Guerin-Meneville, 1915: 173, pl. 24k.

Eucereon punctata, Kaye & Lamont, not Guerin-Meneville, 1927: 12.

This species is confused in Hampson. The description under punctatum (1898: 494) is basically of mitigata Walker, not of punctatum Guerin-Meneville. The photograph taken by Kenedy of the holotype of Chalonia punctata in the Oxford Museum collection is of a Eucereum with a facies resembling marcata; the background area is large and the spotting small and irregularly linear rather than round and orbicular. The label on the photograph of the holotype of punctata has a locality which I decipher as Campeche, which is most likely to be the Yucatan Peninsula. There are three other species that are probably associated with mitigata. Eucereum reticulata Butler from the Amazons is either a synonym or a sibling species, judging from the photograph of the type. The only difference I can observe in the photograph is that the spots on the forewing of reticulata are larger, particularly those spots on each side of the anal vein in the median part of the forewing. Eucereum ruficollis Lathy is very similar to our

Trinidad females. A photograph of the holotype of ruficollis shows denser—or in other words larger—spots making up the median transverse band in the forewing. Eucereum zamorae from Guatemala is also very similar to our Trinidad females if one is to judge on the basis of Hampson's figures (1914: pl. XVIII, fig. 10). It differs in having a line from the terminal spot at the outer margin near the tornus joining the postmedian band in the vicinity of vein Cu<sub>2</sub>.

The figure in Seitz (24k) of *punctatum* is a good match for our Trinidad male *mitigata*. The females have a very white background and the spots are more distant.

Material.—Sixteen males and three females. Range.—Brazil (Para) and Trinidad.

# Eucereum hyalinum Kaye (Pl. III, Fig. 6)

Eucereon hyalinum Kaye, 1901: 119, pl. V, fig. 11. Eucereon hyalina, Hampson, 1914: 323. Eucereum hyalinum, Draudt in Seitz, 1915: 173, pl. 24k.

Eucereon hyalinum, Kaye & Lamont, 1927: 12.

This species was described from Arima. Besides the abdominal differences mentioned in the key, this species may be separated from the very similar latifascia by the following characters: the thorax of hyalinum is dark brown; of latifascia, gray-brown with a fine black mid-dorsal line. The patagia of hyalinum is dark brown with a light brown line; of *latifascia*, light brown with a dark line. The round spot on the middorsum of the metathorax of hyalinum is light gray and orbicular; of latifascia, largely dark brown with two gray streaks on each side of the caudal edges. The pattern of the forewings of hyalinum has the dark spots more amalgamated than latifascia, in which each spot is quite nicely margined by the lighter ground color. The gray-white spot on the outer margin of hyalinum has two black streaks within it, whereas in latifascia the white patch is displaced inwards from the outer margin and the two streaks lie outside of it. In addition to the abdominal characters mentioned in the key the ventrum of hyalinum is brown and the ventrum of *latifascia* is pink.

Material.—Four males and one female. Range.—Trinidad and British Guiana.

# Eucereum dentatum Schaus (Pl. III, Fig. 7)

Eucereon dentatum Schaus, 1894: 229. Eucereon dentata, Hampson, 1914: 329, pl. XVIII,

fig. 26.

Eucereum dentatum, Draudt in Seitz, 1915: 174, pl. 24k.

Eucereon dentatum, Forbes, 1939: 157.

Schaus does not give the sex of the holotype.

Kenedy, who inspected the type in the U. S. National Museum, notes that it is a female. Hampson's figure (1914) of this species shows the basal half of the forewing a much darker color than our single male from Trinidad. Our specimen agrees with the figure in Seitz (1915) in which the color of the basal half of the forewing is but slightly darker than the remainder of the wing.

Material.—One female on March 26.
Range.—Mexico to Ecuador and Venezuela.
A new record for Trinidad.

# Eucereum dorsipunctum (Hampson) (Pl. III, Fig. 8)

Eucereon dorsipuncta Hampson, 1905: 430.
Eucereon dorsipuncta, Hampson, 1914: 320, pl.
XVIII, fig. 12.

Eucereum dorsipunctum, Draudt in Seitz, 1915: 174, pl. 30e.

Eucereon dorsipunctum, Lamont & Callan, 1950:

Material.—One female on April 5, on Heliotropium indicum.

Range.—Venezuela, Bolivia, Paraguay to southern Brazil.

### Eucereum sylvius (Stoll)

Sphinx sylvius Stoll, 1790: pl. 14, figs. 1-5.
Eucereon sylvius, Hampson, 1898: 497.
Eucereum sylvius, Draudt in Seitz, 1915: 175, pl.
25a.

Eucereon sylvius, Kaye & Lamont, 1927: 12.

We have not captured this species at Simla. The two records given by Kaye & Lamont are in the west central part of Trinidad.

Range.—Reported from Mexico to the Amazons.

# Eucereum pseudoarchias Hampson (Pl. III, Fig. 9)

Eucereon pseudoarchias Hampson, 1898: 497, fig. 272.

Eucereum pseudoarchias, Draudt in Seitz, 1915: 175, pl. 25a (f. aurantiaca).

Eucereon pseudoarchias, Kaye & Lamont, 1927: 12.

The wing facies and abdominal pattern are similar in our single female to the males.

Material.—Ten males and one female. Range.—Mexico to the Amazons.

# Eucereum aeolum Hampson (Pl. III, Fig. 10)

Eucereon aeolum Hampson, 1898: 498, pl. XVI, fig. 16.

Eucereum aeolum, Draudt in Seitz, 1915: 175, pl. 25a.

Eucereon aeolum, Kaye & Lamont, 1927: 12.

Kenedy states that the holotype is a male. Kaye & Lamont record the species from Trinidad but with no locality. It is common at Simla. Material.—Thirteen males and 11 females. Range.—Mexico to Peru, Venezuela and Trinidad.

# Eucereum latifascia Walker (Pl. III, Fig. 11)

Eucerea latifascia Walker, 1856: 1639. Eucereon latifascia, Hampson, 1898: 498, pl. XVI, fig. 14.

Eucereum latifascia, Draudt in Seitz, 1915: 176, pl. 25a.

Eucereon latifascia, Kaye & Lamont, 1927: 12.

It is with reluctance that I employ the above name. As I use it, it agrees with the collection in the British Museum (Natural History), which in turn is probably based on a specimen labelled "compared with type at Oxford, 1880." Kenedy thinks our specimens are essentially the same as this one. One specimen from Arima is in the Kaye collection as *latifascia* and is similar to our series.

The following paragraph refers only to the holotype of *latifascia* Walker and not to *latifascia* of authors or my own use of the name in this paper. The following comments are based on a photograph of the holotype in the Oxford Museum.

The photograph of the holotype of latifascia is that of a form very similar to hyalinum. The facies of the forewing of latifascia (holotype) is similar to hyalinum in the disposition of the dark spots and the light patch on the outer margin. The mid-dorsal light spot on the caudal part of the meta-thorax appears to be similar. However, the dorsal abdominal pattern is different. The latifascia (holotype) of the Oxford Museum has the basal abdominal segments dark with the subsequent abdominal segment figured with a mid-dorsal triangular dark patch with the apex of the triangle at the dark basal abdominal segments. The three subsequent bright segments appear to be immaculate, whereas in hyalinum there are dark transverse lines on the metameres of the bright-colored segments. The ventrum of the abdomen of both latifascia (holotype) and hyalinum is dark brown. The facies of both the fore- and hindwing of latifascia (holotype) appear to be very similar to varium Walker. The abdomen of varium is similar except that the dark patch on the segment subsequent to the dark basal segments is quadrate in varium and triangular in latifascia (holotype). My comments on varium are based on the figure of varium in Seitz (1915, pl. 25e).

Although in using the name *latifascia* for the Trinidad material I am apparently perpetuating an error, I consider that naming a new species in this confusing complex of *Eucereum* species would create greater confusion. The elucidation

of this section must await the proper examination of the types and a good series of specimens. Our Trinidad *latifascia* closely resembles the figure in Seitz (1915, pl. 25a). However, in the forewing the light spot near the outer margin of the wing is larger and the bright-colored segments of the abdomen do not have mid-dorsal spots. Hampson's figure of *latifascia* (1898: 498, pl. XVI, fig. 14) does not resemble our specimens, the holotype at the Oxford Museum or the specimens under the name of *latifascia* in the British Museum (Natural History).

The four male genitalia that I have studied in the Trinidad material are variable.

Material.—Thirteen males and one female. Range.—Draudt in Seitz reports his form from Mexico to Peru and Brazil.

# Eucereum obliquifascia Rothschild (Pl. III, Fig. 12)

Eucereon obliquifascia Rothschild, 1912: 175. Eucereon obliquifascia, Hampson, 1914: 329, pl. XVIII, fig. 27.

Eucereum obliquifascia, Draudt in Seitz, 1915: 176, pl. 30g.

Eucereon obliquifascia, Kaye & Lamont, 1927: 13.

Reported only from Trinidad. The type is from Port of Spain, and the British Museum (Natural History) has one other specimen from Caparo, Trinidad. The figures in Hampson and Seitz are unrecognizable. The spots on the forewing are larger and more irregular. An oblique band made up of spots crosses the forewing from the costa through the discal cell to the tornus. A light brownish-gray spot within the cell and four beyond the cell are not shown in the figures.

Material.—Four males. Range.—Trinidad.

### Eucereum maia Druce (Pl. III, Fig. 13)

Eucereon maia Druce, 1884: 86, pl. 9, fig. 13. Eucereon maia, Hampson, 1898: 499. Eucereum maja, Draudt in Seitz, 1915: 176, pl. 25b. Eucereon maia, Kaye & Lamont, 1927: 13.

The commonest species of *Eucereum* at Simla. The forewings have a very noctuid-like pattern.

Material.—Seventy males and eight females. Range.—Central America to the Amazons.

# Eucereum setosum (Sepp) (Pl. III, Fig. 14)

Phalaena setosa Sepp, 1830: pl. 9.
Eucereon setosum, Hampson, 1898: 507.
Eucereum setosum, Draudt in Seitz, 1915: 179, pl. 25f.

Eucereon mara Kaye, 1914: 115. Eucereum mara, Draudt in Seitz, 1915: 179. Material.-One male.

Range.—Mexico to Brazil. A new record for Trinidad.

### Correbia Herrich-Schaeffer

This and the following genus resemble lycid beetles. In the present genus, veins M<sub>2</sub> and M<sub>3</sub> of the forewing are on a long stem. Only one species has been found in Trinidad.

# Correbia lycoides (Walker) (Pl. II, Fig. 31)

Euchromia lycoides Walker, 1854: 256. Euchromia lycoides, Butler, 1877: 47, pl. 8, fig. 10. Correbia ceramboides, Herrich-Schaeffer, 1855: fig. 265.

Correbia lycoides, Hampson, 1898: 515, fig. 273. Correbia lycoides, Draudt in Seitz, 1915: 185, pl. 25k.

Correbia lycoides, Kaye & Lamont, 1927: 13.

Material.—Twenty-nine males and 22 females. Range.—Mexico to Brazil.

### Correbidia Hampson

This genus differs from the preceding in having veins M<sub>2</sub> and M<sub>3</sub> of the forewing approximate or united for a very short distance. Forbes (1939: 160) suspects that many of the species are really forms of a single species. He places striata, elegans, costinota and germana as Central American forms, bicolor, apicalis and terminalis as Antillean, and calopteridia, assimilis and cimicoides as South American.

- Median band of forewing whitish...notata Median band of forewing buff....assimilis
- Base of forewing black, ventrum of terminal abdominal segments yellow...calopteridia Base of forewing yellow, ventrum of terminal abdominal segments black.....terminalis

### Correbidia notata (Butler)

Pionia notata Butler, 1878: 45.

Correbidia notata, Hampson, 1898: 518, pl. XVII, fig. 3.

Correbidia notata, Draudt in Seitz, 1915: 187, pl. 26a

Correbidia notata, Kaye & Lamont, 1927: 13.

Kaye & Lamont list this species from Trinidad with no further data. We have not collected it. Range.—Trinidad and Amazons.

# Correbidia assimilis (Rothschild) (Pl. II, Fig. 32)

Correbia assimilis Rothschild, 1912: 182.
Correbia similis Rothschild, 1912: 182.
Correbia similis Rothschild, 1912: 182.

Correbidia assimilis, Hampson, 1914: 363, pl. XX, fig. 31.

Correbidia similis, Hampson, 1914: 364, pl. XX, fig. 32.

Correbidia assimilis, Draudt in Seitz, 1915: 187, pl.

Correbidia similis, Draudt in Seitz, 1915: 187, pl. 31g.

Correbidia similis, Kaye & Lamont, 1927: 13.

The Trinidad material varies from similis to assimilis. The only difference between similis and assimilis as described is that the yellow patch at the base of the forewing is wider in similis than in assimilis. This widening of the yellow at the base of the wing is done at the expense of the width of the dark band crossing the cell. In the Kenedy photographs of the types before me, the dark band also extends towards the base of the wing just below the cell in assimilis but only along the inner margin in similis. As mentioned above, however, our material grades from the one form to the other in such an even way as to make division of the forms impossible. In a few instances a single specimen will show variation between the wings of one side and the other. Hampson's figures, while suggestive of the species, are unreliable. First, the buff band near the black apical patch of the forewing is narrower in similis than in assimilis, the reverse of Rothschild's description. In point of fact, judging from the photographs of the types, the buff band is of equal width in both forms. It is the median black band that varies in width. In addition, the inner margin of the black apical patch does not arch towards the base of the wing as shown in the figure of similis, but on the contrary, indents towards the outer margin along vein Cu<sub>1</sub> in the form of a small notch as is shown in Hampson's figure of assimilis. The color of the light bands is the same in both forms and not lighter in similis as Hampson's figures would lead one to believe. In the photographs of the types the inner margin is narrowly black from the black median band to the base of the wing in similis and broad in assimilis. The character is not shown in the figures. Seitz's figures are even more unreliable.

I have selected the name assimilis on the basis of paragraph priority.

Material.-One hundred and twenty-five males and 24 females.

Range.—Rothschild described similis from material coming from Venezuela (holotype), Peru and Trinidad, and assimilis from Venezuela (holotype), British Guiana, Surinam and lower and upper Amazons.

### Correbidia calopteridia (Butler)

Pionia calopteridia Butler, 1878: 381. Correbidia calopteridia, Hampson, 1898: 518, pl. XVII, fig. 22.

Correbidia calopteridia, Draudt in Seitz, 1915: 187, pl. 26a.

Correbidia calopteridia, Kaye & Lamont, 1927: 13.

We have not collected this species, but Kaye & Lamont report a specimen from Port of Spain. Range.-Trinidad, Guianas, northern Brazil and Peru.

### Correbidia terminalis (Walker)

Pionia terminalis Walker, 1856: 1633. Charidea cimicoides Herrich-Schaeffer, 1866: 116. Correbidia terminalis, Hampson, 1898: 519, fig. 274. Correbidia terminalis, Draudt in Seitz, 1915: 187. Correbidia terminalis, Kaye & Lamont, 1927: 13.

Collected at Palmiste by Kaye & Lamont but we have not collected it in the Arima Valley.

Range.—Difficult to determine because of misidentifications, but Forbes (1939: 161) gives it as the Greater Antilles.

### Ctenucha Kirby

A varied genus of mostly slim-bodied and broad-winged species, some of which have a facies resembling arctiids and, in the case of the Trinidad species, a geometrid. The genus ranges from Canada to Paraguay.

# Ctenucha andrei Rothschild (Pl. II, Fig. 33)

Ctenucha andrei Rothschild, 1912: 184. Ctenucha andrei, Hampson, 1914: 374, pl. XXI, fig.

Ctenucha andrei, Draudt in Seitz, 1915: 190, pl. 31k. Ctenucha andrei, Kaye & Lamont, 1927: 13.

The facies of this moth resemble a geometrid rather than a ctenuchid. It has very broad bluishblack wings with a white transverse bar. The holotype of this species came from Ariapite Valley, Trinidad.

Material.—Thirteen males and two females. Range.—Trinidad.

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### EXPLANATION OF THE PLATES

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Pī	ATE	- 1

- Fig. 1. Episcepsis pseudothetis, new species. Holotype, Catalog No. 58101 (male).
- Fig. 2. Episcepsis pseudothetis, male genitalia.
- Fig. 3. Aclytia leucaspila, new species. Holotype, Catalog No. 58107 (male).
- Fig. 4. Aclytia leucaspila, male genitalia.

#### PLATE II

- Fig. 1. Dinia aeagrus.
- Fig. 2. Trichura fumida.
- Fig. 3. Trichura coarctata.
- Fig. 4. Aethria carnicauda.
- Fig. 5. Aethria aner.
- Fig. 6. Urolasia brodea.
- Fig. 7. Chrysostola fulvisphex.
- Fig. 8. Cercopimorpha dolens.
- Fig. 9. Episcepsis lenaeus.
- FIG. 10. Episcepsis hypoleuca.
- Fig. 11. Episcepsis redunda.
- Fig. 12. Episcepsis venata.
- Fig. 13. Eriphioides tractipennis.
- Fig. 14. Ceramidia phemonoides.
- Fig. 15. Amycles anthracina.
- Fig. 16. Antichloris eriphia.
- Fig. 17. Napata walkeri.
- Fig. 18. Napata alternata.
- Fig. 19. Napata albiplaga.
- Fig. 20. Napata terminalis.

- Fig. 21. Cyanopepla cinctipennis.
- Fig. 22. Cyanopepla submacula.
- Fig. 23. Aclytia heber.
- Fig. 24. Agyrta dux.
- Fig. 25. Agyrta micilia.
- Fig. 26. Agyrta auxo.
- Fig. 27. Delphyre hebes.
- Fig. 28. Delphyre discalis.
- Fig. 29. Delphyre dizona.
- Fig. 30. Heliura suffusa.
- Fig. 31. Correbia lycoides.
- Fig. 32. Correbidia assimilis.
- Fig. 33. Ctenucha andrei.

#### PLATE III

- Fig. 1. Eucereum cinctum.
- Fig. 2. Eucereum obscurum.
- Fig. 3. Eucereum rosina.
- Fig. 4. Eucereum mitigata.
- Fig. 5. Eucereum mitigata.
- Fig. 6. Eucereum hyalinum.
- Fig. 7. Eucereum dentatum.
- Fig. 8. Eucereum dorsipunctum.
- Fig. 9. Eucereum pseudoarchias.
- Fig. 10. Eucereum aeolum.
- Fig. 11. Eucereum latifascia.
- Fig. 12. Eucereum obliquifascia.
- Fig. 13. Eucereum maia.
- FIG. 14. Eucereum setosum.